



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/316,725	05/21/1999	MICHAEL MUNOZ	P-5502	8221

7590 04/19/2005  
WILLIAM T RIFKIN  
RUDNICK & WOLFE  
P O BOX 64807  
CHICAGO, IL 606640807

EXAMINER

DIXON, THOMAS A

ART UNIT	PAPER NUMBER
----------	--------------

3639

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

---

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
P.O. Box 1450  
ALEXANDRIA, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/316,725  
Filing Date: May 21, 1999  
Appellant(s): MUNOZ ET AL.

**MAILED**  
APR 18 2005  
**GROUP 3600**

---

Joel H. Bootzin  
42,343  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 02 April 2005.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

Appellant's brief does not include a statement that claims do not stand or fall together because it is no longer required.

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

Art Unit: 3639

5,732,401	Conway	3-1998
5,918,219	Isherwood	6-1999
5,971,585	Dangat et al	10-1999
6,009,406	Nick	12-1999

Dossett, Royal "Work-measured labor standards - The state of the art" Industrial Engineering v27n4, (April 1995) pp22-25 (dialog copy 5 pages)

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

A. Claims 1, 3, 4, 6, 7, 8, 11-13, 16, 21-23, 25-28 are rejected under 35

U.S.C. 103(a) as being unpatentable over LeVander (6,216,108) in view of Conway (5,732,401) further in view of Dossett.

As per Claim 1.

LeVander ('108) discloses:

- a) establishing a list of tasks involved in said work process wherein at least one of the said tasks involves execution by a human operator, see figure 5 (206);
- b) calculating the expected duration of said tasks by said human operator using an operator independent method of task time measurement, see (210, 212);
- c) establishing a first cost component of each task as a function of the expected time of execution of said task and a cost per unit of time for said human operator, see (218);
- d) establishing a second cost component of each task dependent on non-labor costs of the process, a portion of each non-labor cost being apportioned to said

Art Unit: 3639

task as a function of the time of execution of said task by said human operator, machine operating time or other relative consumption of a resource, see (210, 216);

e) maintaining the expected time to complete said activities and the cost per unit time of said operator being maintained in a memory of a computer, see column 9, lines 1-25; and

f) the cost of the activity being calculated using said processor, see column 9, lines 1-25 including summing the first and second components for the task to establish a task cost independent of the efficiency of the human operator, see (214, 218).

LeVander ('108) does not specifically disclose the method of motion analysis or healthcare specifically.

Conway ('401) discloses activity based cost tracking in a healthcare environment. see figures 8A-C and column 12, line 43 – column 14, line 48 for the benefit of efficiently determining the actual cost of procedures and determining the particular efficiency of a particular caregiver.

Dossett teaches, see page 2, lines 5-25, common techniques to develop standard times, and further teaches 6 types of motion analysis, of which one is Maynard Operation Sequence Technique, specifically applicable to short cycle, highly repetitive tasks.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to use the motion analysis technique or one of the others in a healthcare environment for the benefit of efficiently determining the actual cost of procedures and determining the particular efficiency of a particular caregiver.

As per Claim 2, 26.

LeVander ('108) does not specifically disclose the Maynard Operation Sequence Technique.

Dossett teaches, see page 2, lines 5-25, common techniques to develop standard times, and further teaches 6 types of motion analysis, of which one is Maynard Operation Sequence Technique, specifically applicable to short cycle, highly repetitive tasks.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to use the Maynard Operation Sequence Technique or one of the others as a design choice.

As per Claim 4, 27.

LeVander ('108) further discloses the activities of a service business, see figure 2 (10).

As per Claim 6.

LeVander ('108) further discloses the activities are performed by two or more different human operators, see figure 2 (54).

As per Claim 7.

Art Unit: 3639

LeVander ('108) further discloses:

f) summing the costs of the tasks in said process to give a process cost, and utilizing the process cost to determine the cost of the work process, see figure 5 (224).

As per Claim 8.

LeVander ('108) further discloses the costs in the work process are associated with a business unit, see column 7, lines 19-28.

As per Claim 11.

LeVander ('108) further discloses said work process is a proposed work process, and the process cost is used to determine the economic outcome of a business decision before it is implemented, see column 9, line 38 – column 10, line 38.

As per Claim 12.

LeVander ('108) further discloses a financial model of revenue costs and profit, see column 7, lines 42-56.

As per Claim 13.

LeVander ('108) further discloses a at least ROI is determined for a capital investment, see column 7, lines 42-56

As per Claim 16.

LeVander ('108) further discloses the utilization ratios are used for the purpose of reallocating work from over-utilized operators to under-utilized operators, see column 8, lines 57-62.

As per Claim 21.

LeVander ('108) further discloses revenue generated by said process is calculated and profitability of said work process is calculated based on the difference between the cost of the process and the revenue, see column 7, lines 16-67.

As per Claim 22.

LeVander ('108) further discloses the difference between the calculated time to complete a task independent of the operator and the actual time taken by the operator is used to establish a risk profile for the business, see column 11, lines 6-31.

As per Claim 23.

LeVander ('108) further discloses a difference between the calculated time to complete a task independent of the operator and the actual time take by the operator is used to establish hidden liability of unperformed work, see column 11, lines 6-31.

As per Claim 25.

LeVander ('108) does not further discloses the task cost is utilized with other task costs for activity based costing.

Art Unit: 3639

Conway ('401) teaches task costs utilized activity based costing, see column 2, lines 24-32 for the benefit of accurately pricing services.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the combined task costs of LeVander ('108) as taught by Conway ('401) for the benefit of accurately pricing services.

As per Claim 28.

LeVander ('108) discloses:

calculating the expected duration of said tasks by said human operator using an operator independent method of task time measurement to establish a first component cost, see (210, 212);

establishing a first cost component of each task as a function of the expected time of execution of said task and a cost per unit of time for said human operator, see (218);

establishing a second cost component of each task dependent on non-labor costs of the process, a portion of each non-labor cost being apportioned to said task as a function of the time of execution of said task by said human operator, machine operating time or other relative consumption of a resource, see (210, 216);

maintaining the expected time to complete said activities and the cost per unit time of said operator in a memory of a computer, see column 9, lines 1-25; and

calculating a task cost independent of the efficiency of the human operator for each task using a processor, see column 9, lines 1-25 including summing the first and second components for the task to establish, see (214, 218); and

calculating a total cost utilized to determine the cost of the work process, said calculating performed by using said processor of said computer for summing the costs of the tasks to obtain a total cost utilized to determine the cost of the work process, see column 10, lines 25-33.

LeVander ('108) does not specifically disclose the method of motion analysis or healthcare specifically.

Conway ('401) discloses activity based cost tracking in a healthcare environment. see figures 8A-C and column 12, line 43 – column 14, line 48 for the benefit of efficiently determining the actual cost of procedures and determining the particular efficiency of a particular caregiver.

Dossett teaches, see page 2, lines 5-25, common techniques to develop standard times, and further teaches 6 types of motion analysis, of which one is Maynard Operation Sequence Technique, specifically applicable to short cycle, highly repetitive tasks.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to use the motion analysis technique or one of the others in a healthcare environment for the benefit of efficiently determining the actual cost of procedures and determining the particular efficiency of a particular caregiver.

Art Unit: 3639

B. Claims 2, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over LeVander (6,216,108) in view of Conway (5,732,401) further in view of Dossett further in view of Isherwood (5,918,219).

As per Claim 2.

LeVander ('108) does not disclose operator independent method of task time measurement is a predetermined motion time system.

Isherwood ('219) teaches the independent task time measurement is a predetermined motion time system, see figure 5 (503) for the benefit of accurate job cost estimating.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to use the predetermined motion time system of Isherwood ('219) in combination with the invention of LeVander ('108) for the benefit of accurate job cost estimating.

As per Claim 14.

LeVander ('108) does not disclose a business goal is set and changes in process cost and time are calculated.

Isherwood ('219) teaches the setting of goals and calculating changes in cost and time, see figure 3 (311, 312 and 316)

C. Claims 15, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over LeVander (6,216,108) in view of Conway (5,732,401) further in view of Drossett, further in view of Dangat et al (5,971,585).

As per Claim 15.

LeVander ('108) does not limit the running of the process to one time and could be used for the entire business but does not specifically disclose the method is utilized to establish the cost of all work processes in a business.

Dangat et al ('575) teaches management of the total business in multiple tiers from the whole business down to individual operator assignments, see column 1, line 47 – column 3, line 15 for the benefit of effective decision making.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to utilize the process of LeVander ('108) throughout the whole business as taught by Dangat et al ('575) for the benefit of effective decision making.

As per Claim 17.

LeVander ('108) does not disclose reallocating work from over-utilized operators to under-utilized operators.



Art Unit: 3639

Dangat et al ('575) teaches work allocation, see column 2, lines 35-49 for the benefit of effective decision making.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to reallocate personnel or machines as taught by Dangat et al ('575) in the invention of LeVander ('108) for the benefit of effective decision making.

As per Claim 18.

LeVander ('108) does not disclose utilization ratios are used for the purpose of bring operators close to a 100% utilization ratio.

Dangat et al ('575) teaches optimization of work allocation, see column 2, lines 8-21 for the benefit of effective decision making.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to optimize the reallocation personnel or machines as taught by Dangat et al ('575) in the invention of LeVander ('108) for the benefit of effective decision making.

As per Claim 19.

LeVander ('108) does not disclose operation costs comprise department costs.

Dangat et al ('575) teaches long range planning which include multiple facilities, which are seen to be departments, see column 4, lines 60-67 for the benefit of effective decision making.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to include departmental costs in the operating costs of the business as taught by Dangat et al ('575) in the invention of LeVander ('108) for the benefit of effective decision making.

As per Claim 20.

LeVander ('108) does not disclose operation cost comprise total business operating costs.

Dangat et al ('575) teaches long range planning which include cost/pricing, see column 2, lines 47-65 for the benefit of effective decision making.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to include total operating cost of the business as taught by Dangat et al ('575) in the invention of LeVander ('108) for the benefit of effective decision making.

D. Claims 9, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over LeVander (6,216,108) in view of Conway (5,732,401) further in view of Drossett, further in view of Nick (6,009,406).

As per Claim 9.

Art Unit: 3639

LeVander ('108) does not disclose the costs of the work process comprise business line costs of a business line.

Nick ('406) discloses a including costs of a product line and custom engineered product line, see column 2, lines 6-63 for the benefit of maintaining profitability in a competitive market.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to include the costs of a product line in the costs of the work process, as taught by Nick ('406) for the benefit of maintaining profitability in a competitive market.

As per Claim 10.

LeVander ('108) does not disclose the business line costs and revenue are used to calculate the profitability of the business line.

Nick ('406) discloses a including costs of a product line and custom engineered product line, see column 2, lines 6-63 for the benefit of maintaining profitability in a competitive market.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to include the costs of a product line in the costs of the work process, as taught by Nick ('406) for the benefit of maintaining profitability in a competitive market.

### **(11) Response to Argument**

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, however, LeVander and Conway both teach cost determination for costs of labor and materials and are seen to be combinable. Dossett teaches "work-measured labor standards have been around for a century and they will continue to be around for the foreseeable future"

and that the Maynard Operation Sequence Technique is just one of many time and motion techniques.

Applicant's arguments that Conway teaches away because it does not specifically teach individual tasks is not convincing. Conway is not relied on to teach the individual acts, but to show that the application of work measurement to the medical environment is known. The work measurement field is old and well known to measure individual tasks and a benefit can be increasing productivity or at the least a way to provide future estimates. Applicant has not demonstrated any unexpected results from the use of work measurement in the medical area as opposed to other fields of endeavor.

Applicant's arguments that the examiner has not provided motivation is not convincing, examiner's motivation was "for the benefit of efficiently determining the actual cost of procedures and determining the particular efficiency of a particular caregiver." The specific motivation to do time and motion studies is to measure individual tasks and a benefit can be increasing productivity or at the least a way to provide future estimates. Applicant has not demonstrated any unexpected results from the use of work measurement in the medical area as opposed to other fields of endeavor.


Examiner disagrees with Applicant's characterization of the reference to "Cheaper by the Dozen," Mr. Galbraith was a pioneer in time and motion studies, his standard practice was to film the process being studied and break it down into its component movements, so in the case of "tonsillectomies" the entire operation would be

Art Unit: 3639

filmed, then each of the surgeon/nurse's motions would be analyzed to determine the best practice for the benefit of minimizing wasted motions. Again, Galbraith is mentioned only to demonstrate a suggestion for work measurement in the medical field.

Applicant does not argue any of the features of the dependent claims as being patentably distinct.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,  
  
Thomas A. Dixon  
Primary Examiner  
Art Unit 3639

April 7, 2005

Conferees

John Weiss, SPE 

Dean Nguyen, Primary Examiner 

WILLIAM T RIFKIN  
RUDNICK & WOLFE  
P O BOX 64807  
CHICAGO, IL 60664-0807